

Date: Wednesday, 3/8/2006 10:38:24 AM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : HORIZONTAL TUBE
Job Number : 26120	
Estimate Number : 12313	
P.O. Number : N/A	Part Number : D34737
This Issue : 3/8/2006 S.O. No. : N/A	Drawing Number : D3473 REV A
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : PURCHASED PARTS	Drawing Revision : A
Previous Run : N/A	Material : N/A
Written By : <i>See comment below</i>	Due Date : 3/31/2006 Qty: <i>10</i> Um: Each
Checked & Approved By : <i>06-03-08</i>	
Comment : Est Rev: A New Issue 06-03-02 JLM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: Issue P/O: *00000768* *06/03/09*
 E-mail or Ship DXF file to vendor
 Laser cut flat pattern as per Dwg D3473
 Possible supplier: Ind. Laser
 Material release note is required.

2.0	D34737F	HORIZONTAL TUBE FLAT PATTERN
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Comment: Qty.: 1.0000 sf(s)/Unit Total : *6.0000* sf(s)
 FLANGE PLATE

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1
 Receive & Inspect For Transit Damage
 Ensure material certification is attached

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Deburr if necessary.

Spot weld & then
 2-Roll & Bead as per Dwg D3473

made by Rand

SB 06/04/25

5

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
		One labor per template		2003-29	1		

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☐ No ☒ DQA: ☒ Date: 06/04/2006
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
06/04/26		Slot pattern from laser cut wrong dims		Scrap 10 pieces replace with 5 made by hand Scrap template				

NOTE: Date & initial all entries

Date:
User:

Wednesday, 3/8/2006 10:38:25 AM
Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HORIZONTAL TUBE

Job Number: 26120

Part Number: D34737

Job Number:



Seq. #:

Machine Or Operation:

Description :

3-Spot weld as per Dwg D3473

6.0

QC591

WELD INSPECTION



Comment: WELD INSPECTION

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

Job Completion



Level 21 inspection

AD 06-04-25 (5)
06/04/27
U 06-04-26

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

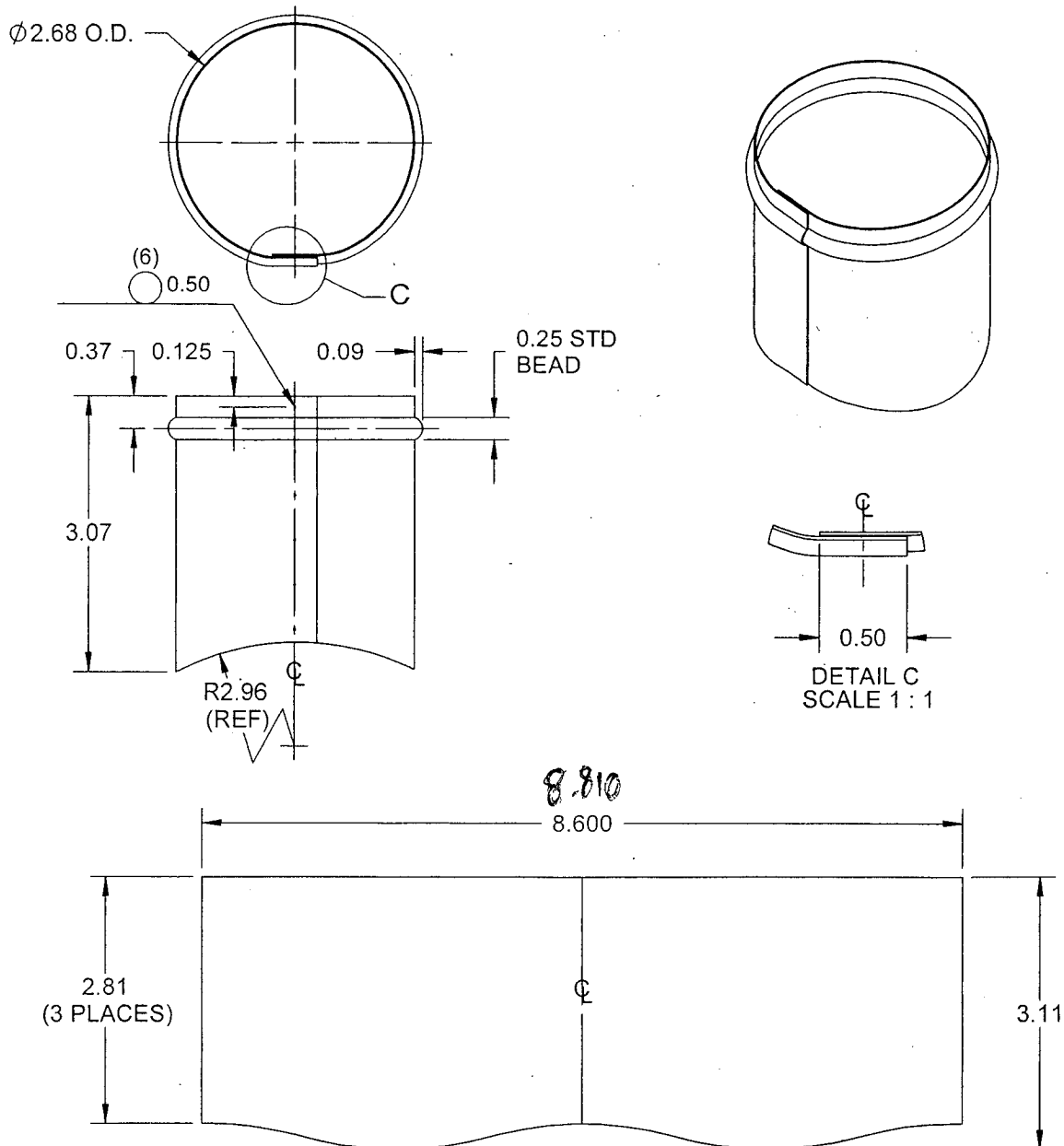
QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

PRELIMINARY ISSUE

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3473	REV. A SHEET 6 OF 7
DATE 06.02.07		TITLE BLOWER INLET ADAPTER	SCALE 1:2



D3473-7F HORIZONTAL TUBE FLAT PATTERN

NOTES:


- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5019 (ANNEALED) 2B FINISH
26 GAUGE SS (0.018 THICK)
- 2) SPOT WELD PER DART QSI 004
- 3) FINISH: NONE
- 4) FLAT PATTERN IS SYMMETRICAL ABOUT CENTERLINE
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES
- 7) BREAK ALL SHARP EDGES 0.005 TO 0.010

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INDUSTRIAL LASER P.O. - 110880 S.O. - 374786 TIRM 01 - 3 SHIS

604-946-453. 3/13/06

		AK Steel Corporation Metallurgical Test Report Construction Works Construction, OH 43812		Fig 1 Lead No. 710572 SRN No. 710472	
INTEGRIS METALS PO BOX 340 MINNEAPOLIS, MN 55402 PH 612 338 1111 FAX 612 338 1112		INTEGRIS METALS 306 E STREET ALBURN, WA 98001 FAX 360 833 1111 TEL 360 833 1112		MILIT. ORDER NO. 77180-0191 PROCESSOR ORDER NO. 427135-01 BUYERS ORDER NO. 427135-01 EXHAUST UNITS - PRODUCT - MINE AND UNITS 2100000 40000 X COIL	
SKID ID FECH HEAT PARENT COIL ID NET WEIGHT		SKID13A 1 710051 650019-01 42512L 402 KG.		SKID13B 1 710051 650019-01 42512L 402 KG.	
SKID13C 1 710051 650019-01 42512L 402 KG.		SKID13D 1 710051 650019-01 42512L 402 KG.		SKID13E 1 710051 650019-01 42512L 402 KG.	
SKID13F 1 710051 650019-01 42512L 402 KG.		SKID13G 1 710051 650019-01 42512L 402 KG.		SKID13H 1 710051 650019-01 42512L 402 KG.	
TOTAL SKIDS TOTAL 4		TOTAL NET WEIGHT 1605 KG.		TOTAL NET WEIGHT 1605 KG.	
L-Label Analysis of Heat P-Product Analysis of Parent Coil CHEMICAL ANALYSIS		ID C MN P S SI CR NI MO N CU CO			
SHIPPING DATE: 09/17/2005 REMARKS NO INTENTIONAL ADDITIONS OF MERCURY OR ELEMENTS CAPABLE OF FORMING LOW MELTING SOURCE, AND LOW MELTING ALLOYS OR ELEMENTS CAPABLE OF FORMING LOW MELTING ALLOYS WERE MADE THROUGHOUT THE PROCESSING OF THIS MATERIAL		PRODUCT DESCRIPTION CO SET TYPE 304 SEAMLESS 120 PIVOT BLT EDGE 1 AND 5/16 ALL TENS HOOKS HAVE BEEN MET (WELDS BARE) TO OR NOTED OTHERWISE 1 2 STM 1 250-04 EX PANA 3.1.1 1.5 BLONG WILL BE DETERMINED BY MATS 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 H 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 ASME SA-240 SECTION II PART B (2001 ED. 2002 ADDENDA) EX PANA 3.1.1 1.5 BLONG WILL BE DETERMINED BY MATS 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100			
PARENT COIL FOR (E/F) (L/T/D) CONO 2 INCH MEASURED (R/S) TENSILE STRENGTH (R/S) YS (R/S) ROCKWELL HARDNESS (R/S) ROCKWELL HARDNESS (R/S) ID		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100			

MATERIAL TEST REPORT

From: NORTH AMERICAN STAINLESS CANADA, IN
740 IMPERIAL ROAD NORTH

Page : 1
Heat/Lot : 86K8
TIN : B42748

Sold To: INTEGRIS METALS, LTD.
7910 49TH STREET SE
CALGARY, AB T2C2Y3

Ship To: ***CUSTOMER PICKUP***
4375 14TH STREET NORTHEAST
CALGARY
ABT3E7A9

Vendor Information

Cust PO #: 406824

Cust PO DT: 11/03/05

Specifications

STAINLESS STEEL SHEET, COLD ROLLED, ANNEALED AND PICKLED.
ASTMA240/04a 480/04a, 666/03, ASME SA240/04-A05, 480/04-A05, SA666/04
Q08766D-A X 1/8 PRM, AMS5513H X MRK&FIN, MIL5059D, AMD3, X CROWN MEAS
CORROSION: ASTM A262/02aE; 180Bend-OK
Buyer Part: 4288441
304 2B .1305 IN 48 IN 96 IN
Country of Origin: UNITED STATES

Mechanical Tests

		UOM	L	O	UOM	L	O
Yield Strength - 0.2% Offset	40	KSI	F	TRANSV			
Tensile Strength (UTS)	93.3	KSI	F	TRANSV			
Rockwell B	85		F	TRANSV			
Pct Uniform Elong 2 In/50mm	57.01	PCT	F	TRANSV			
Rockwell A	85		T	TRANSV			

Chemical Composition

C Carbon-Pct	.059	CR Chromium-Pct	18.360
CU Copper-Pct	.342	MN Manganese-Pct	1.643
MO Molybdenum-Pct	.285	N Nitrogen-Pct	.037
NI Nickel-Pct	8.150	P Phosphorus-Pct	.029
SI Silicon-Pct	.289		

Comments

MATERIAL TEST REPORT

From: NORTH AMERICAN STAINLESS CANADA, IN
740 IMPERIAL ROAD NORTH

Page : 2
Heat/Lot : 86K8
TIN : B42748

Material free from mercury contamination. No weld repairs.
EN 10204 3.1 PED 97/23/EC Annex1, Para. 4.3 QQS763F Cond A
This document certifies the material has been tested in
accordance with applicable specifications described herein
and has met those requirements.

QA by ERIC HESS 02/01/2006

Miscellaneous Data

GUELPH, ONT. K1Z3
Control #: SC60214
Part #: 74271441
.135 X .48 X .96

Date: 03/17/06

SOLD TO: INDA LASH

TO 110880

S/O 90-374786 - 02

[Signature] 3/17/06

The Chemical Analysis and Mechanical Test
data was received via EDI from the above
mentioned vendor.

INTEGRIS METALS, LTD.